

In re Patent Application of:

BRANCH ET AL.

Serial No. 10/015,024

Filed: DECEMBER 11, 2001

IN THE CLAIMS

1. (currently amended) An optical transceiver comprising:

a carrier including a cooperating structure at a distal portion thereof;

a cover including a coupling mechanism couplable to the cooperating structure ~~a portion~~ of said carrier to define a transceiver enclosure; and

an electro-optical assembly supported in said transceiver enclosure; and,

wherein ~~a coupling mechanism coupled to one of said carrier or said cover,~~ said coupling mechanism cooperates ~~cooperating~~ with said cooperating structure to enable ~~on the~~ ~~other of said carrier or said cover for allowing~~ pivoting motion in a controlled path of said cover relative to said carrier between closed and opened conditions relative to said transceiver enclosure about a pivoting axis offset from said transceiver;

wherein said cooperating structure includes a pair of separate and laterally spaced apart coupling elements that project from said carrier; and

wherein said coupling mechanism includes a pair of elongated slots, each of said slots is in corresponding separate and spaced apart walls of said cover, each of said slots being sized and shaped for camming corresponding ones of said coupling elements.

2. (currently amended) An optical transceiver comprising:

a carrier including a cooperating structure at a distal portion thereof;

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a separable cover including a coupling mechanism
couplable to the cooperating structure ~~of a distal portion of~~
~~said carrier~~ to define a transceiver enclosure; and

an electro-optical assembly supported in said transceiver
enclosure; ~~and,~~

wherein said a coupling mechanism is coupled to said
cooperating structure for allowing pivoting motion in a
controlled path of said cover between closed and opened
conditions relative to said transceiver enclosure about a
pivoting axis offset from said transceiver;

wherein said coupling mechanism includes a pair of
separate and laterally spaced apart coupling elements that
project from said cover; and

wherein each of said coupling elements has a tapering
configuration that is sized and shaped to be slideably
received by said cooperating structure for allowing the
pivoting motion and to assist in a locking engagement of said
cover and said carrier when said cover is in the closed
condition.

3. (original) The transceiver of claim 2 wherein said coupling mechanism cams said cover to move to the closed condition without interference with upstanding components of said electro-optical assembly.

4. (original) The transceiver of claim 2 wherein said coupling mechanism cams said cover to move to the closed condition without applying lateral loads to upstanding components of said electro-optical assembly which would be sufficient to force said components from their intended upright positions.

5. (original) The transceiver of claim 3 wherein said coupling

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mechanism positions that at least one of said upstanding components is in a thermally conductive heat transfer relationship to an interior surface of said cover when the latter is in the closed condition.

6. (canceled)

7. (currently amended) The transceiver of claim 1, ~~6~~ wherein each of said coupling elements has a tapering configuration that is sized and shaped to be ~~slidably~~slideably received by said coupling mechanism ~~cooperating structure~~ for allowing the pivoting motion and to assist in a locking engagement of said cover and said carrier when said cover is in the closed condition.

8. (currently amended) The transceiver of claim 2, ~~7~~ wherein said cooperating structure includes a pair of elongated slots, each of said slots is in corresponding separate and spaced apart wall of said carrier, each of said slots being sized and shaped for camming corresponding ones of said coupling elements.

9. (original) The transceiver of claim ~~7~~ wherein said pair of coupling elements straddle and engage opposing longitudinal marginal edges of said electro-optical assembly.

10. (original) The transceiver of claim ~~8~~ wherein said cover and said carrier are made of a material that provides for EMI shielding.

11. (original) The transceiver of claim ~~10~~ wherein said pair of coupling elements fit snugly within said slots so as to

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block said slots to provide for EMI shielding.

12. (currently amended) A data transfer system including a wall having an access opening and an adapter card assembly, in combination with an optical transceiver which is mounted to said wall access opening, said optical transceiver comprising:

a carrier;

a cover couplable to a portion of said carrier to define a transceiver enclosure;

an electro-optical assembly supported in the enclosure; and,

a coupling mechanism coupled to one of said carrier and ~~or~~ said cover, said coupling mechanism cooperating with a ~~said~~ cooperating structure on the other of said carrier and ~~or~~ said cover for allowing pivoting motion in a controlled path of said cover relative to said carrier between closed and opened conditions relative to said enclosure about a pivoting axis offset from said transceiver;

wherein said coupling mechanism includes a pair of separate and laterally spaced apart coupling elements that project from said cover; and

wherein each of said coupling elements has a tapering configuration that is sized and shaped to be slideably received by said cooperating structure for allowing the pivoting motion and to assist in a locking engagement of said cover and said carrier when said cover is in the closed condition.

13. (currently amended) A data transfer system including a wall having an access opening and an adapter card assembly, in combination with an optical transceiver which is mounted to said wall access opening, said optical transceiver comprising:

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a carrier including a cooperating structure;
a separable cover including a coupling mechanism
couplable to the cooperating structure of a distal portion of
said carrier to define a transceiver enclosure; and

an electro-optical assembly supported in said enclosure,
said electro-optical assembly having a distal end protruding
from said enclosure and being connectable to said adapter card
assembly; and,

wherein the a coupling mechanism is coupled to said
cooperating structure for enabling allowing pivoting motion of
said cover between closed and opened conditions relative to
said transceiver enclosure about a pivoting axis offset from
said transceiver;

wherein said coupling mechanism includes a pair of
separate and laterally spaced apart coupling elements that
project from said cover; and

wherein said cooperating structure includes a pair of
elongated slots, each of said slots is in corresponding
separate and spaced apart wall of said carrier, each of said
slots being sized and shaped for camming corresponding ones of
said coupling elements.

14. (original) The system of claim 13 wherein said coupling mechanism cams said cover to move to the closed condition without substantial interference with upstanding components of said electro-optical assembly.

15. (original) The system of claim 13 wherein said coupling mechanism cams said cover to move to the closed condition without applying lateral loads to upstanding components of said electro-optical assembly that would be sufficient to damage said components.

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16. (original) The system of claim 14 wherein said coupling mechanism insures that at least one of said upstanding components is in a thermally conductive heat transfer relationship to an interior surface of said cover when the latter is in the closed condition.

17. (currently amended) The system of claim 12, ~~13~~ wherein said cooperating structure includes a pair of elongated slots, each of said slots is in corresponding separate and spaced apart walls of said carrier or said cover, each of said slots being sized and shaped for camming corresponding ones of said coupling elements.

18. (original) The system of claim 17 wherein said pair of coupling elements straddle and engage opposing longitudinal marginal edges of said electro-optical assembly.

19. (original) The system of claim 17 wherein said cover and said carrier are made of a material that provides for EMI shielding, such that said pair of coupling elements fit snugly within said slots so as to block said slots to provide for EMI shielding.

20. (currently amended) A method of assembling components of an optical transceiver, said method comprising the steps of:

 providing a carrier;

 providing a cover joinable together with the carrier to define an enclosure therebetween;

 providing an electro-optical subassembly substantially within the enclosure and supported by the carrier, wherein the optical subassembly comprises an electro-optical unit;

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providing a coupling mechanism on one of the carrier and
~~or~~ the cover;

providing a cooperating structure on the other of the
carrier and ~~or~~ cover; and,

moving the cover to the carrier so that when the coupling
mechanism is joined to the ~~cooperating~~cooperating structure the
cover pivots in a controlled path between opened and closed
conditions about an axis remote from the transceiver whereby
interference of the cover and the electro-optical assembly is
substantially eliminated.

21. (original) The method of claim 20 wherein said steps of
providing a coupling mechanism and cooperating structure
includes providing material for each that provides for EMI
shielding.